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Remarks

In the present RCE, two claims (1 and 21) are amended; and one claim (25) is newly added. No new matter is entered. Claims 1-7, 9-14, and 16-25 are presented for examination.

I. Claim Rejections: 35 USC § 112

Claims 21-24 are rejected under 35 USC 112, second paragraph, as being indefinite. Claim 21 is amended to cure this rejection.

II. Claim Rejections: 35 USC § 103

Claims 14 and 16-23 are rejected under 35 USC § 103(a) as being unpatentable over USPN 6,347,337 (Shah) in view of USPN 6,044,406 (Barkey). These rejections are traversed.

To establish a prima facie case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art cited must teach or suggest all the claim limitations. *See* M.P.E.P. § 2143. Applicants assert that the rejection does not satisfy these criteria.

Claim 14

Independent claim 14 recites numerous recitations that are not taught or suggested in Shah in view of Barkey. For example, claim 14 recites "automatically returning a credit in a random manner to one of the sources that have spent credits held by the buffer" (emphasis added). The Office Action argues that Shah teaches these recitations at column 7, lines 57-67 and column 15, lines 36-41. Applicants respectfully disagree.

Column 7, lines 57-67 in Shah teaches how to reduce memory registrations. Specifically, global send and receive descriptors are created, and descriptors are assigned to endpoints. Nowhere, however, does this section of Shah teach or even suggest

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returning credits in a "random manner" to sources when a number of empty buffer spaces is smaller than a buffer threshold.

Column 15, lines 36-41 in Shah teaches that endpoints determine whether a value of a RecvCredit is greater than a threshold value. "If the RecvCredits is greater than the threshold value, a Credit Response is sent to the other endpoint" (15: 39-41). Nowhere, however, does this section of Shah teach or even suggest returning credits in a "random manner" to sources when a number of empty buffer spaces is smaller than a buffer threshold.

For at least these reasons, claim 14 and its dependent claims are allowable over Shah and Barkey.

Claim 21

Independent claim 21 recites numerous recitations that are not taught or suggested in Shah in view of Barkey. For example, claim 21 recites "wherein a total number of issued credits to the plurality of sources does not exceed available space in the buffer so the buffer cannot overflow." Shah teaches credit-based flow control between endpoints. Shah, however, never suggests that the total number of issued credits to the endpoints does not exceed available space in the buffer to prevent overflow. Barkey is likewise deficient.

For at least these reasons, claim 21 and its dependent claims are allowable over Shah and Barkey.

III. Claim Rejections: 35 USC § 103

Claim 24 is rejected under 35 USC § 103(a) as being unpatentable over USPN 6,347,337 (Shah) in view of USPN 6,044,406 (Barkey) and USPN 6,674,722 (Tiainen). These rejections are traversed.

Claim 24 depends from independent claim 21. Tiainen fails to cure the deficiencies of Shah and Barkey. Thus, for at least the reasons given in connection with independent claim 21, dependent claim 24 is allowable.

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IV. Claim Rejections: 35 USC § 103

Claims 1-6 are rejected under 35 USC § 103(a) as being unpatentable over USPN 6,347,337 (Shah) in view of USPN 6,044,406 (Barkey) and USPN 6,715,008 (Shimizu) and USPN 6,751,698 (Dencroff). These rejections are traversed.

Independent claim 1 recites numerous recitations that are not taught in Shah, Barkey, Shimizu, and Dencroff. For example, claim 1 recites "wherein a number of credits assigned to the interprocessor router and the cache control unit is based, at least in part, on round-trip times required to transmit credits between the interprocessor router and the buffer and between the cache control unit and the buffer." Applicants have reviewed the art of record, but they do not teach or suggest this recitation.

For at least these reasons, claim 1 and its dependent claims are allowable over the art of record.

V. New Claim

Applicants add new claim 25. This claim recites subject matter not taught or suggested in the art of record. No new matter is entered.

VI. Allowed Claims

Applicants sincerely thank the Examiner for allowing claims 7 and 9-13.

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CONCLUSION

In view of the above, Applicants believe all pending claims are in condition for allowance. Allowance of these claims is respectfully requested.

Any inquiry regarding this Amendment and Response should be directed to Philip S. Lyren at Telephone No. 832-236-5529. In addition, all correspondence should continue to be directed to the following address:

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CERTIFICATE UNDER 37 C.F.R. 1.8

The undersigned hereby certifies that this paper or papers, as described herein, is being transmitted to the United States Patent and Trademark Office facsimile number 571-273-8300 on this 24th day of April, 2006.

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